AMENDMENTS TO THE CLAIMS

Claims 4, 24, 26, 29-34, 36-40, 61 and 62 are currently canceled without prejudice. Claims 1 and 12 have been amended as follows:

1. (Currently Amended) A method of preparing a polymannuronate composition, comprising:

providing alginate;

hydrolyzing the alginate to form a mixture comprising polymannuronate and polyguluronate, wherein the polymannuronate has a molecular weight ranged from about 4,000 Dalton (Da) to about 500,000 Da, wherein the hydrolysis comprises adding one or more organic acids to the alginate and heating the mixture of the alginate and the organic acid, and wherein the organic acid is selected from the group consisting of citric acid, malic acid, oxalic acid, lactic acid, succinic acid, tartaric acid and acetic acid, wherein the hydrolysis is carried out for about 20 minutes to about 3 hours; and

isolating the polymannuronate from the mixture.

2. (Original) The method of Claim 1, wherein the providing the alginate comprises extracting the alginate from marine algae.

3. (Previously Presented) The method of Claim 1, wherein the alginate has a molecular weight from about 2,000,000 Da to about 4,000,000 Da.

4. (Canceled)

5. (Original) The method of Claim 1, wherein the hydrolysis is carried out for about 40 minutes to about 2 hours.

6. (Original) The method of Claim 1, wherein the hydrolysis is carried out for about 1 hour to about 1.5 hours.

7. (Previously Presented) The method of Claim 1, wherein the polymannuronate has a molecular weight from about 10,000 Da to about 100,000 Da.

8. (Previously Presented) The method of Claim 1, wherein the polymannuronate has a molecular weight from about 25,000 Da to about 80,000 Da.

9. (Previously Presented) The method of Claim 1, wherein the polymannuronate has a molecular weight from about 40,000 Da to about 50,000 Da.

10. (Canceled)

11. (Canceled)

12. (Currently Amended) The method of Claim 10, ~~preparing a polymannuronate composition, comprising:~~

~~providing alginate;~~

~~hydrolyzing the alginate to form a mixture comprising polymannuronate and polyguluronate, wherein the polymannuronate has a molecular weight ranged from about 4,000 Da to about 500,000 Da;~~

~~isolating the polymannuronate from the mixture; and~~

~~wherein the hydrolysis comprises adding one or more organic acids including acetic acid to the alginate and heating the mixture of the alginate and the organic acid,~~ wherein the organic acid is acetic acid.

13. (Previously Presented) The method of Claim 1, wherein the concentration of the organic acid is from about 0.2 M to about 0.6 M.

14. (Original) The method of Claim 1, wherein the isolation of polymannuronate comprises adjusting pH of the mixture.

15. (Original) The method of Claim 14, wherein the pH of the mixture is adjusted to a range from about 2.5 to about 3.5.

16. (Original) The method of Claim 14, wherein the pH of the mixture is adjusted to a range from about 2.8 to about 3.0.

17. (Original) The method of Claim 14, wherein the pH adjustment is carried out by adding one or more acids.

18. (Canceled)

19. (Original) The method of Claim 1, wherein the isolation of polymannuronate comprises forming a precipitate in the mixture and collecting a supernatant, in which the polymannuronate is dissolved.

20. (Original) The method of Claim 19, wherein the isolation further comprises precipitating the polymannuronate from the collected supernatant.

21. (Original) The method of Claim 1, wherein the isolation of polymannuronate isolates the polymannuronate with a purity from about 70 wt.% to about 98 wt.%.

22. (Original) The method of Claim 1, wherein the isolation of polymannuronate isolates the polymannuronate with a purity from about 80 wt.% to about 97 wt.%.

23. (Original) The method of Claim 1, wherein the isolation of polymannuronate isolates the polymannuronate with a purity from about 90 wt.% to about 95 wt.%.

24. (Canceled)

25. (Canceled)

26. (Canceled)

27. (Canceled)

28. (Canceled)

29. (Canceled)

30. (Canceled)

31. (Canceled)

32. (Canceled)

33. (Canceled)

34. (Canceled)

35. (Canceled)

36. (Canceled)

37. (Canceled)

38. (Canceled)

39. (Canceled)

40. (Canceled)

41. (Previously Presented) A nutritional composition comprising a foodstuff and polymannuronate having a molecular weight from about 40,000 Da to about 80,000 Da.

42. (Original) The nutritional composition of Claim 41, wherein the polyguluronate is in an amount less than about 15 wt.% of the total weight of the polymannuronate and polyguluronate.

43. (Original) The nutritional composition of Claim 41, wherein the polyguluronate is in an amount less than about 10 wt.% of the total weight of the polymannuronate and polyguluronate.

44. (Original) The nutritional composition of Claim 41, wherein the polymannuronate is in an amount from about 0.00001 wt.% to about 50 wt.%.

45. (Original) The nutritional composition of Claim 41, wherein the polymannuronate is in an amount from about 0.0001 wt.% to about 15 wt.%.

46. (Original) The nutritional composition of Claim 41, wherein the foodstuff is in a liquid or solid form.

47. (Original) The nutritional composition of Claim 41, wherein the foodstuff is selected from the group consisting of beverages, margarine, hams and noodles.

48. (Previously Presented) The nutritional composition of Claim 41, wherein in the event that the nutritional composition additionally comprises polyguluronate, the polyguluronate is in an amount less than about 30 wt.% of the total weight of the polymannuronate and polyguluronate.

49. (Canceled)

50. (Previously Presented) The nutritional composition of Claim 41, wherein the polymannuronate has a molecular weight from about 40,000 Da to about 50,000 Da.

51. (Previously Presented) A pharmaceutical composition comprising polymannuronate and a pharmaceutical carrier, wherein the polymannuronate has a molecular weight from about 40,000 Da to about 80,000 Da.

52. (Previously Presented) The pharmaceutical composition of Claim 51, wherein in the event that the pharmaceutical composition additionally comprises polyguluronate, the polyguluronate is in an amount less than about 30 wt.% of the total weight of the polymannuronate and polyguluronate.

53. (Canceled)

54. (Canceled)

55. (Previously Presented) The pharmaceutical composition of Claim 51, wherein the polymannuronate has a molecular weight ranged from about 40,000 Da to about 50,000 Da.

56. (Previously Presented) A method of treatment selected from the group consisting of controlling cholesterol level in blood, controlling serum lipids, hyperlipidemia, obesity, diabetes, and enhancing functions of liver, the method comprising administering a

composition comprising a pharmaceutically acceptable carrier and polymannuronate having a molecular weight from about 40,000 Da to about 80,000 Da to a patient in need of such treatment.

57. (Canceled)

58. (Canceled)

59. (Previously Presented) The method of Claim 56, wherein the polymannuronate has a molecular weight from about 40,000 Da to about 50,000 Da.

60. (Previously Presented) The method of Claim 56, wherein in the event that the composition additionally comprises polyguluronate, the polyguluronate is in an amount less than 30 wt.% of the total weight of the polymannuronate and polyguluronate.

61. (Canceled)

62. (Canceled)